

FIG. 1

FIG. 2B

7

FIG. 3B

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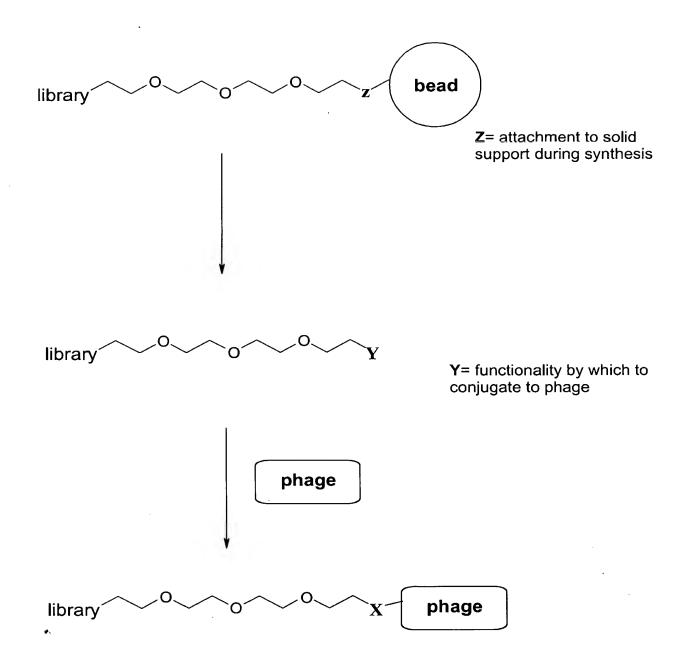
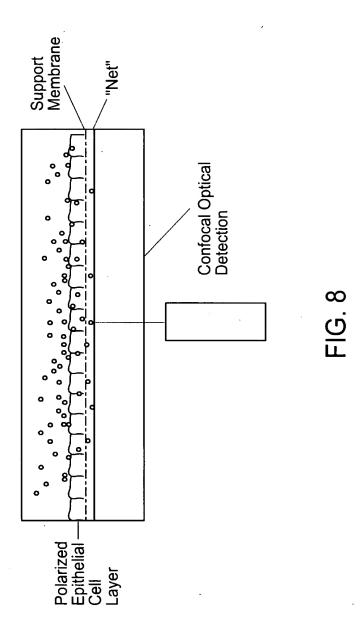


FIG. 4

FIG. 5

FIG. 7D



CGCCGGCGWSSSWWSWWSWWSSSCTTAAGGGATATCACTCAGCATAATTTCGAA GCGCCCGCWSSSWWSWWSWWSWWSSSGAATTCCCTATAGTGAGTCGTATTAAAGCTT T7 promoter HindIII Notl oligonucleotide tag S=G/C W=A/T ∭d biotinylation substrate sequence Filamentous phagemid display (gene VIII) BstXIBstXI st II leader Nhe J

FIG.

T7 transcription start

Filamentous phagemid display (gene VIII)

. gene 8 flexible spacer Ö 3 biotinylation substrate sequence ĿЛ biotin

FIG. 10A

T7 display (gene 10B)

biotinylation substrate sequence Ω <u>ი</u> z

biotin

FIG. 10B

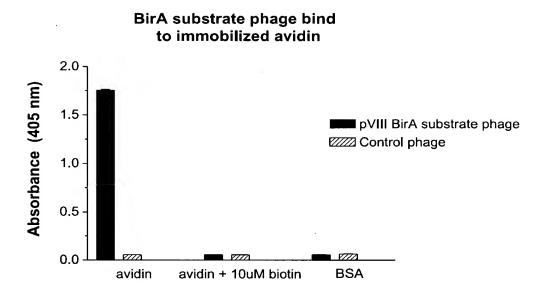
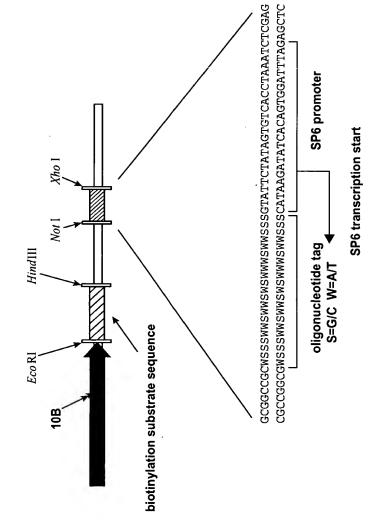


FIG. 11



T7 display (gene 10B)

FIG. 12

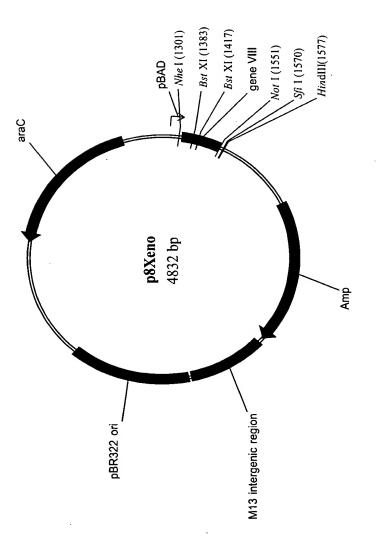
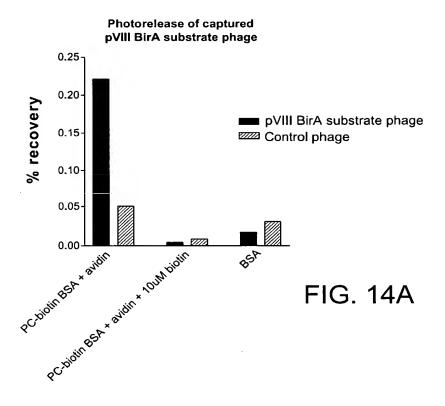
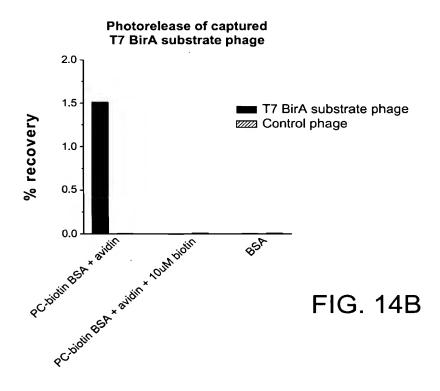


FIG. 13





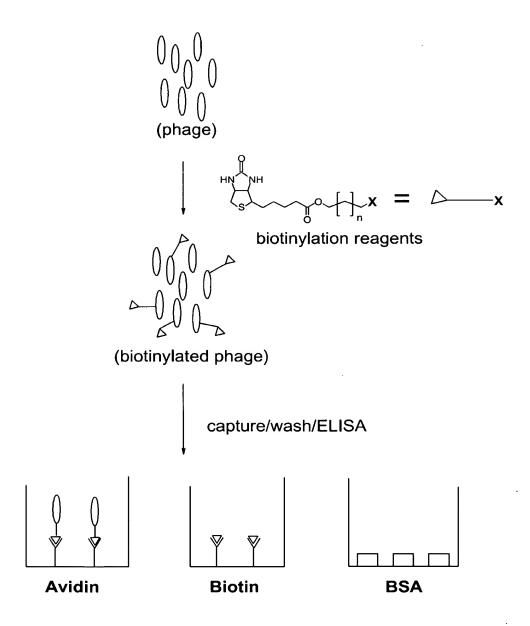
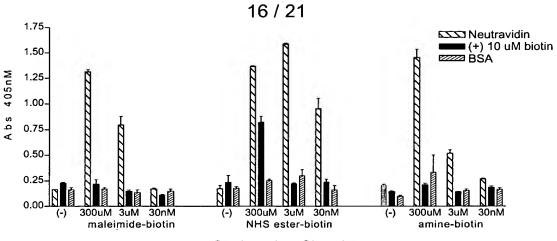
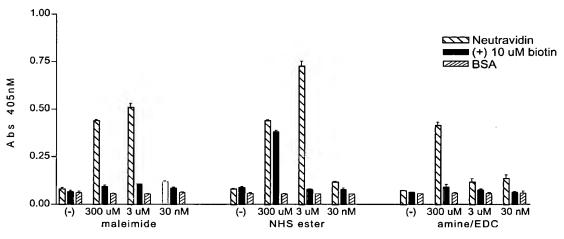


FIG. 15

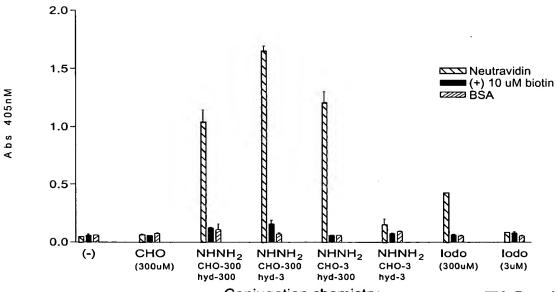


Conjugation Chemistry



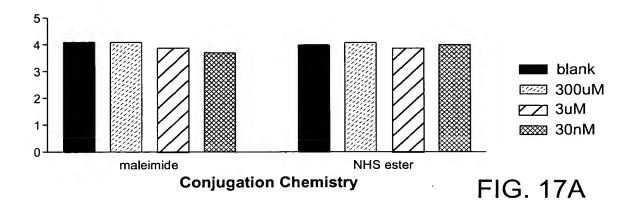
Conjugation chemistry

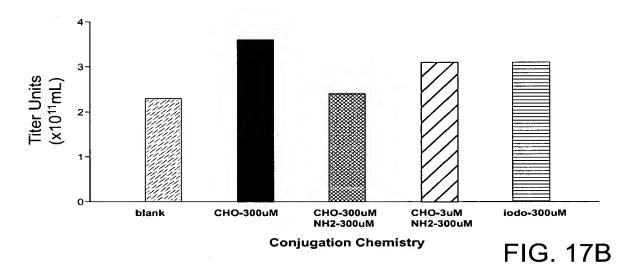
FIG. 16B



Conjugation chemistry

FIG. 16C





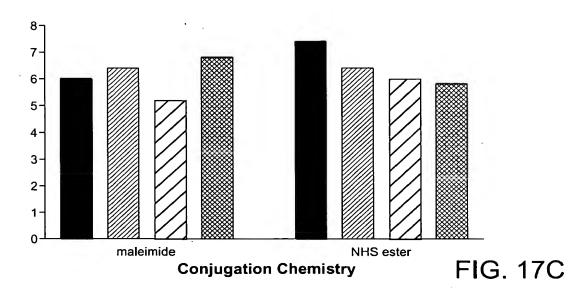
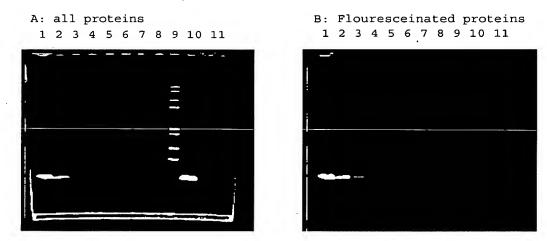


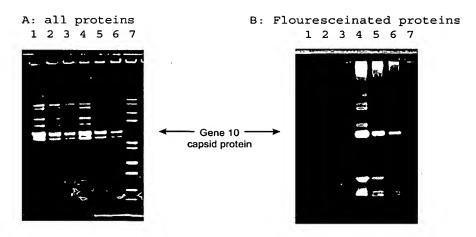
FIG. 18

7



Lanes 1-8: Fd phage treated with fluorescein-NHS ester (2X dilutions) Lane 9: MW markers Lanes 10-11: Fd phage treated with fluorescein- CO_2H (10X dilution)

FIG. 19



Lanes 1-3: T7 phage treated with fluorescein- CO_2H (2X dilutions) Lanes 4-6: T7 phage treated with fluorescein-NHS ester (2X dilutions) Lane 7: MW markers

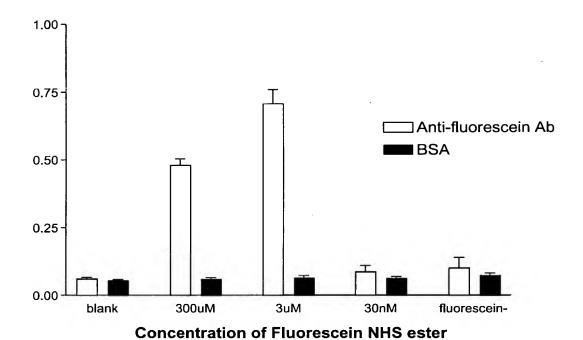


FIG. 20

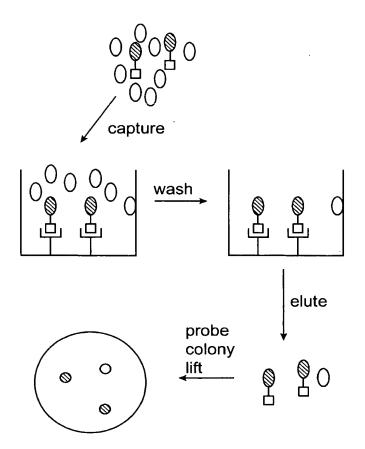


FIG. 21

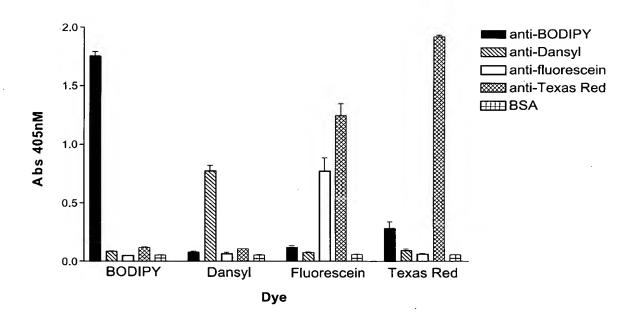


FIG. 22